UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

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DETAILED ACTION

Introduction

1.   The following is a **FINAL** Office Action in response to the communication
received on 20 May 2010. Claims 1, 4-12, 14-15, 18-23, 25-26, 29-30, and 32-34 are
now pending in this application.

Response to Amendments

2.   Applicants Amendments to Claims 1, 4-12, 14-15, 18-23, 25-26, 29-30, and 32-
34 have been acknowledged in that: **Claims 1, 15, 26, and 33-34 have been newly
amended**; **NO Claims have been newly cancelled**; **NO Claims have been newly
added**; hence, as such, **Claims 1, 4-12, 14-15, 18-23, 25-26, 29-30, and 32-34 are
pending in this application**.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

4.   Claims **1, 4-12, 14-15, 18-23, 25-26, 29-30,** and **32-34** are rejected under 35
U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and
distinctly claim the subject matter which applicant regards as the invention.

        Referring to Claims 1, 4-12, 14-15, 18-23, 25-26, 29-30, and 32-34: Claims 1, 4-
12, 14-15, 18-23, 25-26, 29-30, and 32-34 recite the terminology "natural language".
The Examiner notes that it is unclear to what such "natural language" is. Is the "natural
language" the language of the region to which the business application operates or is

the "natural language", that is, the English language? Furthermore, even if it is the

English language, then, what version of the English language would this "natural

language" fall under? Such feature needs to be clarified within the claim language of

the instant application. [See MPEP § 2173.05(d) for additional guidance].

Appropriate correction is required.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 1, 4-12, 14-15, 18-23, 25-26, 29-30, and 32-34 are rejected under 35

U.S.C. 103(a) as being unpatentable over Eder (US Pat. No. 7,580,848), [hereinafter

Eder] in view of D'Alessandro (US Pat. No. 6,556,974), [hereinafter Alessandro].

Referring to Claims 1, 15, 26, and 33-34: Eder discusses a system for detecting

behavioral patterns related to the financial health of a business entity, comprising: a

computing device having a processor that executes at least one data collection

application to extract financial data and business data that relates to the business entity

from at least one data source, wherein the financial data comprises: (i) [quantitative]

financial data comprising financial numerical data, and (ii) qualitative financial data

comprising financial narrative data representing events that financially affect the

business entity, and wherein the business data comprises: (i) [quantitative] business

data comprising non-financial numerical data, and (ii) qualitative business data
comprising non-financial narrative data representing events related to management and
organization associated with the business entity (Eder: Abstract; Figure 1; Column 4,
Line 53-Column 6, Line 47); and wherein the data collection application utilizes event
detection and natural language processing to extract the narrative data for the
qualitative financial data and the qualitative business data (Eder: Abstract; Figure 1;
Column 4, Line 53-Column 6, Line 47); and the processor performing analytics on the
financial data and the business data via an analytics engine residing on a computing
device as programming instructions and configured to perform analytics on the financial
data and business data, wherein the analytics engine is configured to: (a) analyze
[quantitative] data comprising the [quantitative] financial data and [quantitative] business
data using a financial anomaly detection technique to detect the behavioral patterns
associated with the business entity with respect to [quantitative] data (Eder: Abstract;
Figure 1; Column 4, Line 53-Column 6, Line 47; Column 7, Line 45-Column 10, Line
15); (b) analyze qualitative data comprising the financial data and qualitative business
data using the financial anomaly detection technique to detect the behavioral patterns
associated with the business entity with respect to qualitative data (Eder: Figure 1;
Column 7, Line 45-Column 10, Line 15); and (c) evaluate the analyzed [quantitative]
data in combination with and in relation to the analyzed qualitative data using a
reasoning methodology that incorporates temporal relationships and confidence levels
to substantiate the detected behavioral patterns in relation to each other (Eder:

Abstract; Figure 1; Column 4, Line 53-Column 6, Line 47; Column 7, Line 45-Column 10, Line 15; Claims 1-5).

Eder, however, does not expressly utilize the term "quantitative" in relation to a system for detecting behavioral patterns related to the financial health of a business entity.

Alessandro, in a similar environment, shows usage of the term "quantitative" in relation to a system for detecting behavioral patterns related to the financial health of a business entity (Alessandro: Abstract; Figure 1; Column 2, Line 56-Column 4, Line 39).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the method and system of Eder for analyzing, modeling and valuing elements of a business enterprise with the features of Alessandro for a method for evaluating current business performance for the purpose of providing a database of cumulative data which could be utilized both externally and internally to organizations thus allowing these organizations to benchmark the data and align themselves amongst industry peers (Alessandro: Abstract; Column 2, Line 56-Column 4, Line 39; Claims 1-7).

Referring to Claims 4, 18, and 29: Eder teaches a system, wherein the data source comprises at least one of [quantitative] business and financial information sources and qualitative business and financial information sources (Eder: Abstract; Figure 1; Column 4, Line 53-Column 6, Line 47).

Referring to Claims 5 and 19: Eder discloses a system, wherein the behavioral patterns comprises at least one of likelihood of fraud, financial credit or investment risk

and good credit or investment prospect associated with the business entity (Eder:
Figure 1; Column 4, Line 53-Column 6, Line 47; Column 7, Line 45-Column 10, Line 15;
Claims 1-7).

Referring to Claims 6 and 20-22: Eder shows a system, wherein the data
collection application comprises at least one of [quantitative] data collection applications
and qualitative data collection applications (Eder: Abstract; Figure 1; Column 4, Line
53-Column 6, Line 47; Claims 1-5).

Referring to Claim 7: Eder discusses a system, wherein the [quantitative] data
collection applications comprise commercial database data extraction tools and financial
data extraction tools (Eder: Abstract; Figure 1; Claims 1-5).

Referring to Claim 8: Eder teaches the limitations of Claim 1.

Eder, however, does not expressly utilize the term "quantitative" in relation to a
system for detecting behavioral patterns related to the financial health of a business
entity.

Alessandro, in a similar environment, shows usage of the term "quantitative" in
relation to a system for detecting behavioral patterns related to the financial health of a
business entity as well as a system, wherein the financial data extraction tools are
configured to extract financial data and financial measures from the quantitative
financial data and quantitative business data (Alessandro: Abstract; Figure 1; Column 2,
Line 56-Column 4, Line 39).

At the time of the invention it would have been obvious to one of ordinary skill in
the art to modify the method and system of Eder for analyzing, modeling and valuing

elements of a business enterprise with the features of Alessandro for a method for evaluating current business performance for the purpose of providing a database of cumulative data which could be utilized both externally and internally to organizations thus allowing these organizations to benchmark the data and align themselves amongst industry peers (Alessandro: Abstract; Column 2, Line 56-Column 4, Line 39; Claims 1-7).

Referring to Claim 9: Eder discloses a system, wherein the qualitative data collection applications comprise event detection and natural language processing tools (Eder: Abstract; Figure 1; Column 4, Line 53-Column 6, Line 47; Claims 1-5).

Referring to Claim 10: Eder shows a system, wherein the event detection and natural language processing tools are configured to extract keywords and text patterns from the qualitative financial data and qualitative business data (Eder: Abstract; Figure 1; Claims 1-5).

Referring to Claims 11, 23, and 30: Eder teaches a system, wherein the financial anomaly detection technique comprises at least one of outlier detection, trend analysis, correlation analysis, regression and factor and cluster analysis (Eder: Abstract; Figures 1-3; Claims 1-5).

Referring to Claim 12: Eder discusses a system, wherein the financial anomaly detection technique detects the behavioral patterns based on an analysis of at least one of past financial measures related to the business entity, past financial measures related to at least one industrial segment associated with the business entity and

current financial measures related to at least one industrial segment associated with the business entity (Eder: Abstract; Figure 1; Column 4, Line 53-Column 6, Line 47).

Referring to Claims 14, 25, and 32: Eder discloses a system, wherein the analytics engine is further configured to generate an alert signal, wherein the alert signal comprises at least one of a visual representation and textual representation of the detected behavioral patterns (Eder: Abstract; Figure 1; Column 4, Line 53-Column 6, Line 47; Claims 1-7).

Response to Arguments

7.   Applicants arguments filed 20 May 2010 have been fully considered but have been found to be **moot** and **non-persuasive** in view of the Examiner's comments which follow the Applicants arguments. Applicants argue:

Argument

Claim   Rejections   under   35   U.S.C.   103
Claims 1, 4 - 12, 14 - 15, 18 - 23, 25 - 26, 29 - 30, and 32 - 34 are rejected under 35 USC 103(a) as being unpatentable over Eder (U.S. Pat. 7,580,848) in view of D'Alessandro (U.S. Pat. No. 6,556,974). The Applicant respectfully traverses the rejection and respectfully submits that the applied references do not teach, suggest, or disclose either individually or in combination the claimed features. Applicant submits that the combination of the cited references would not render the subject matter of the amended claims obvious to one of ordinary skill in the art. Applicant respectfully requests that the Office withdraw the rejection under 35 USC 103. Eder describes and teaches a method and system for business valuation [Col. 1, lines 22 - 23]. It describes valuating both tangible and intangible assets [Col. 6, lines 7 - 9] to measure financial performance [Col. 4, lines 45 - 49]. It extracts financial data concerning revenue, expenses, capital, and elements of value [Col. 8, lines 4 - 7]. It does not describe or

teach any particular means used for such extraction, nor does it describe or teach any distinction between qualitative or quantitative/numerical data. It does not describe or teach any distinction between financial and business data. One skilled in the art would only glean from Eder that an enterprise needs to extract both tangible (income, profit, expenses, etc.) and intangible (intellectual property assets) financial data when valuing a company. D'Alessandro describes and teaches a survey/interview method [Col. 1. lines 7 - 8, Col. 2, line 63] that surveys employees [Col. 3, line 33] and non-employees [Col. 3, line 59] about business performance [Col. 3, line 67] and then quantifies the results of the survey [Col. 4, line 4]. It further describes a total quality scorecard based on the Malcolm Baldridge criteria. The only means described for obtaining data is the survey method using questions; there are no data extraction techniques described or suggested. Moreover, it does not describe or teach any distinction between financial data, business data, qualitative data, or quantitative data. One skilled in the art would only glean from D'Alessandro that an enterprise can survey its employees, compile the results to determine performance of the business. Each of the independent claims has been amended to better clarify the terms used to distinguish the four types of data that are collected and analyzed. The financial data comprises: (i) quantitative financial data comprising financial numerical data, and (ii) qualitative financial data comprising financial narrative data representing events that financially affect the business entity. Similarly, the business data comprises: (i) quantitative business data comprising non-financial numerical data, and (ii) qualitative business data comprising non-financial narrative data representing events related to management and organization associated with the business entity. Moreover, in order to extract the "narrative data," event detection and natural language processing is utilized. Thereafter, these four types of data are analyzed and fused to provide the results regarding the business entity. Applicant submits that the facts do not support a conclusion that the claimed invention is obvious for at least the following reasons and requests withdrawal of the rejections. Eder in view of D 'Alessandro does not describe or suggest the four types of data that are extracted and analyzed in accordance with the methods/system of the independent claims. Eder describes valuating both tangible and intangible assets to measure

financial performance. D'Alessandro describes a survey method used to compile the results regarding the performance of the business. There remains, however, a non-obvious gap between these applied references and the invention as claimed. Numerous non-obvious differences exist which cannot be remedied without improper hindsight reconstruction, including the extraction described in the claims of the "narrative data" using event detection and natural language processing and the analysis and fusion of these four types of data to provide the results regarding the business entity. The gap between the cited art and the claimed invention is so great as to render the claims nonobvious to one reasonably skilled in the art. Applicant further submits that modifying Eder in view of D'Alessandro would fundamentally alter the method of Eder rendering it inoperable for its intended purpose. It is well established that if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention, then the teachings of the references are not sufficient to render the claims prima facie obvious. In re Ratti, 270 F.2d 810, 123 USPQ 249 (CCPA 1959). Moreover, if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). This is the situation we have here. Eder describes a method and system for business valuation using both tangible and intangible assets to measure financial performance by extracting financial data concerning revenue, expenses, capital, and elements of value. It does not and would not use any sort of "survey" method as described in D'Alessandro to obtain such data. Nor would it have reason to combine the employee/non-employee survey data with its financial data as that would be irrelevant and/or taint the results. Accordingly, Applicant requests that the rejection of the independent claims be withdrawn. The dependent claims incorporate all of the subject matter of their respective independent claims and add additional subject matter which makes them a fortiori and independently patentable over the art of record. Accordingly, Applicant respectfully requests that the outstanding rejections of the dependent claims be reconsidered and withdrawn.

Regarding Argument

The Examiner respectfully disagrees. As a preliminary matter Appellant is reminded that patents are written by and for skilled artisans. See e.g. Vivid Technologies, Inc. v. American Science and Engineering, Inc., 200 F.3d 795, 804, 53 USPQ2d 1289, 1295 (Fed. Cir. 1999) ("patents are written by and for skilled artisans"). Thus, the Examiner therefore starts with the presumption that Appellant is a skilled artisan who possess at least ordinary skill in the art. Consequently, it is the Examiner's position that because the patent references of record are directed to those with ordinary skill in this art; these references are clear, explicit, and specific as to what they teach. Per Applicants very own submission stated supra, Eder describes and teaches a method and system for business valuation [Col. 1, lines 22 - 23]. It describes valuating both **tangible** and **intangible** assets [Col. 6, lines 7 - 9] **to measure financial performance** [Col. 4, lines 45 - 49]. It extracts financial data concerning revenue, expenses, capital, and elements of value [Col. 8, lines 4 - 7]. It does not describe or teach any particular means used for such extraction, however, one of ordinary skill in the art/knowledge would come to understand that it does describe and/or teach the distinction between qualitative or quantitative/numerical data. Quality is quite relative while quantitative is usually numerical in the art. Additionally, one of ordinary skill in the art/knowledge would come to understand that Eder also does show, describe, and/or teach a distinction between financial and business data. Applicants further go on to admit that D'Alessandro describes and teaches a survey/interview method [Col. 1. lines 7 - 8, Col. 2, line 63] that surveys employees [Col. 3, line 33] and non-employees [Col. 3, line 59] about business performance [Col. 3, line 67] and then quantifies the results of

the survey [Col. 4, line 4]. It further describes a total quality scorecard based on the Malcolm Baldridge criteria. The only means described for obtaining data is the survey method using questions; there are no data extraction techniques described or suggested. The Examiner notes that such data gathering is equivalent to data extraction and sorting. Thus, D'Alessandro describes and/or teaches a distinction between financial data, business data, qualitative data, or quantitative data. Regarding the motivation to combine the Eder and D'Alessandro prior art references, the Examiner notes that KSR forecloses the argument that a specific teaching, suggestion, or motivation is required to support a finding of obviousness. [Please see KSR, 127 S. Ct. at 1741, 82 USPQ2d at 1396 for further guidance]. See also:

In re Dembiczak, 50 USPQ2d 1614 (Motivation to Combine): We have noted that evidence of a suggestion, teaching, or motivation to combine may flow from the prior art references themselves, **the knowledge of one of ordinary skill in the art**, or, in some cases, from the nature of the problem to be solved.

In re Keller, 208 USPQ 871 (CCPA 1981) (Motivation Not Found in References): [The] Test of obviousness is not whether features of secondary reference may be bodily incorporated into primary reference's structure, nor whether claimed invention is expressly suggested in any one or all of references; **rather, [the] test is what [the] combined teachings of [the] references would have suggested to those of ordinary skill in art**.

8.   The arguments as filed 20 May 2010 have been fully considered but have been found to be **moot** and **non-persuasive**. As the remaining claims depend directly or indirectly from the independent claims mentioned/discusses above, the Examiner maintains all previously asserted rejections.

Conclusion

9.   Applicants amendment necessitated any new grounds of rejection presented herein. Accordingly, **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

        A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

        Any inquiry concerning this communication should be directed to BENJAMIN S. FIELDS at telephone number 571.272.9734. The examiner can normally be reached MONDAY THRU FRI between the hours of 9AM and 7PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KAMBIZ ABDI can

be reached at 571.272.6702. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas Dixon/

Primary Examiner, Art Unit 3684

Benjamin S. Fields
23 July 2010